

REMARKS

The specification has been corrected, and Claims 1, 4, 12, 13, 18, 21, 24, 42, 43, 48 and 51 have been amended, to place the above-referenced application in condition for allowance. In view of these amendments and the following reasoning for allowance, the applicants hereby respectfully request further examination and reconsideration of the subject application.

The Objection to the Specification

The specification was objected to over a series of informalities. All the cited informalities have been corrected in the ways suggested by the Examiner. Accordingly, the applicants respectfully request that the proposed corrections be entered and the objection to the specification be withdrawn.

The Section 112, Second Paragraph, Rejections of Claims 18-20 and 24-26

Claims 18-20 and 24-26 were rejected under 35 USC 112, second paragraph, as being indefinite. It is believed that the foregoing amendments to the claims have clarified any indefiniteness that existed in the original claim language.

Specifically, Claims 18 and 24 were changed to eliminate the phrase "the difference in" as suggested by the Examiner on Page 5 of the above-identified Office Action.

It is believed the amended claims now fulfill the requirements of 35 USC 112, second paragraph, as they particularly point out and distinctly claim the subject matter that the applicants regard as the invention. Therefore, it is respectfully requested that the rejection of Claims 18-20 and 24-26 be reconsidered.

The Section 102 Rejection of Claims 1, 34 and 42

Claims 1, 34 and 42 were rejected under 35 USC 102(e) as being anticipated by Cureton et al. (U.S. Patent Application Publication No. 2002/0116200). The Office Action asserts that Cureton discloses each and every element of the applicant's claimed invention. In response, the applicants have amended the rejected claims to make them novel over the teachings of Cureton.

More particularly, independent Claims 1 and 42 were amended to specify that the building of a geometric model database includes "establishing a set of entities that are of interest in the environment, each entity of which is represented by at least a coordinate frame unique to that entity, and characterizing the location of each entity in the environment in terms of the coordinated frame of at least one other entity, rather than in terms of a coordinate frame common to all entities". Cureton does not teach this added feature, as recognized by the Examiner in the comments on Page 10 of the Office Action.

A prima facie case of anticipation is established only when the Examiner can show that the cited reference teaches each of the claimed elements of a rejected claim. In this case, the Examiner cannot show that the Cureton reference teaches the claimed feature whereby building the geometric model database includes establishing a set of entities where each is represented a coordinate frame unique to that entity, and characterizing the location of each entity in terms of the coordinated frame of at least one other entity. Thus, the rejected claims recite a feature that is not taught in cited art, and as such a prima facie case of anticipation cannot be established. It is, therefore, respectfully requested that the rejection of Claims 1, 34 and 42 be reconsidered based on the novel claim language:

" building a geometric model database of the environment based

on an initial input of said information, comprising,
establishing a set of entities that are of interest in the environment, each entity of which is represented by at least a coordinate frame unique to that entity, and
characterizing the location of each entity in the environment in terms of the coordinated frame of at least one other entity, rather than in terms of a coordinate frame common to all entities."

It is noted that Claims 4, 12, 13, 18, 21, 24, 43, 48 and 51 were amended to conform their language to the aforementioned change made in the base claims.

The Section 103(a) Rejection of Claims 2-8, 12-16, 27, 28, 35-41, 43-48, 50 and 51

Claims 2-7, 12, 13, 27, 28, 35-41, 43-48, 50 and 51 were rejected under 35 USC 103(a) as being unpatentable over Cureton in view of Babst et al., U.S. Patent No. 6,429,420. It is contended in the Office Action that the combined teachings of Cureton and Babst teach all the elements of the rejected claims, and that it would have been obvious to incorporate the Babst teachings into Cureton to produce the applicants' claimed invention. Additionally, Claim 8 was rejected under 35 USC 103(a) as being unpatentable over Cureton in view of Babst et al., and in further view of Kacyra et al., U.S. Patent No. 6,473,079; Claim 14 was rejected under 35 USC 103(a) as being unpatentable over Cureton in view of Babst et al., and in further view of Cox et al., U.S. Patent No. 5,363,305; and Claims 15 and 16 were rejected under 35 USC 103(a) as being unpatentable over Cureton in view of Babst et al., and in further view of Cox and Davison et al., U.S. Patent No. 6,516,099. It was contended in the Office Action that the Cureton and Babst combination taught all the elements of Claims 8 and

14-16 with the exception of characterizing an entity's extent as a polygonal region, assigning a spatial uncertainty estimate to each measurement, and using more than one measurement to define an entities relationship to another entity and choosing a measurement to use on a random basis or based on with the lowest uncertainty. However, it was further contended that Kacyra, Cox and Davison teach these features, respectively, thereby making the aforementioned claims obvious.

The applicants hereby respectfully disagree with the contentions of obviousness identified above because the Babst patent is not a prior art reference with respect to the subject application. The Babst patent was filed on 6/30/2000, which is subsequent to the 12/10/1999 filing date of the provisional patent application 60/170,285, which the present application claims priority to (see the filing receipt). The claims of the present application are fully supported in the provisional application. Thus, the Examiner is apparently relying on a German patent application (i.e., DE 199 32 779), which was filed on 7/14/99, and to which the Babst patent claims priority, to support the aforementioned obviousness rejection. However, the German application was not published until 1/25/2001, well after the filing date of the aforementioned provisional (see attached bibliography). Further, the German application cannot be considered a reference under 35 USC 102(e). Thus, the effective filing date of the Babst patent is 6/30/2000, and so cannot be considered as a prior art reference in connection with the subject patent application having an effective filing date of 12/10/1999.

In order to deem the applicant's claimed invention unpatentable under 35 USC 103, a prima facie showing of obviousness must be made. Without the teachings of the Babst patent, no such showing is possible by definition. It is, therefore, respectfully requested that the rejection of Claims 2-8, 12-16, 27, 28, 35-41, 43-48, 50 and 51 be reconsidered.

It is noted that in reviewing the subject application it was realized that even though priority to the aforementioned provisional application was claimed in the application papers, it was not referred to in the specification of the application itself. Accordingly, such a recitation has been added by the amendments to the specification provided above.

The Objections to Claims 9-11, 17-26, 29-33 and 49

Claims 9-11, 17-26, 29-33 and 49 were objected to as being dependent upon a rejected base claim. The Examiner stated that they would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The applicants at this time, however, respectfully decline to rewrite these claims because it is their position that the independent claims from which these claims depend are now patentable.

Summary

In summary, it is believed that the specification and Claims 1-51 are in condition for allowance. Accordingly, reconsideration of the rejection of Claims 1-8, 12-16, 18-20, 24-28, 34-48, 50 and 51, and withdrawal of the objections to the specification and Claims 9-11, 17, 21-23, 29-33 and 49, are respectfully requested. In addition, allowance of all the claims at an early date is courteously solicited.

Respectfully submitted,



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